



TURF SOIL MANAGEMENT

Sound soil management is the building block of a healthy system. This three-week course focuses on the basics of soil science, management of soil physical properties including organic matter, different types of cultivation techniques, and the construction and management of different root zone systems.

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Course Structure

This course is organized into three one-week units. Each week will have two video lectures and a short 10-question quiz. Students should contact Doug with questions related to the course content or with questions about Masterio, quizzes, grades etc. The preferred method of communication is the instructors email listed above. Any general questions about GreenKeeper University should be directed to help@greenkeeperapp.com.

Course Content

Both video lectures will be posted at the beginning of the week at the course's Masterio site (<http://gku.greenkeeperapp.com>). A PDF copy of the lecture slides materials will be posted below each video link. Supplemental readings will also be post below the video lectures, when applicable. The supplemental content is not required to pass the weekly quizzes. They are designed to provide additional information about a topic. Video lectures are approximately 45-60 minutes in length.

Weekly Quizzes

Each week concludes with a 10-question quiz. They are designed to emphasize the core concepts from the past week. Quiz questions are displayed one-at-a-time with immediate feedback to help student understand why an answer is correct or incorrect. While GreenKeeper University courses are not graded, students must earn a 70% on a quiz to pass that week. Quizzes can be taken as many times as possible to earn a passing grade.

The course will be completed, and 1 credit will be earned once a student passed all three quizzes.



COURSE TOPICS & SCHEDULE

SECTION 1: BASIC TRAINING: SOIL PROPERTIES IMPORTANT FOR TURFGRASS MANAGEMENT

Lecture 1 – The nature and property of soils

- Soil formation and weathering, soil texture, soil structure, bulk density, soil color

Lecture 2 – Obtaining soil property information

- Online information for general soil properties
- Soil testing for specific information

SECTION 2: CONSTRUCTING TURFGRASS ROOT ZONES

Lecture 3 – Constructing turfgrass root zones – part 1

- USGA recommendations,

Lecture 4 – Constructing turfgrass root zones – part 2

- Variable depth root zones, sand cap systems, native soil root zones and mixes for tee boxes and athletic fields

SECTION 3: MANAGING TURFGRASS ROOT ZONES

Lecture 5 – Topdressing and cultivation – part 1

- Designing a sampling plan for measuring organic matter in soil and using data on organic matter to make management decisions, introduction to topdressing

Lecture 6 – Topdressing and cultivation – part 2

- Topdressing and aeration, topdressing sand assessment (size, shape), determining appropriate topdressing volumes and frequencies, cultivation and topdressing